

REMARKS/ARGUMENTS

Favorable reconsideration of this Application, as presently amended and in light of the following discussion, is respectfully requested.

This Amendment is in response to the Office Action mailed on March 17, 2005. Claims 1-5, 8-18, and 21-25 are pending in the Application, Claims 1-6, 8-19 and 21-51 stand rejected, and Claims 7 and 20 stand objected to as being dependent upon rejected base claims, but would be allowed if rewritten in independent form. Claims 1, 8, 9, 21, 32, 35, 38, 39, 43-46, 48, and 49 are amended and Claims 6, 7, 19, and 20 are cancelled without prejudice.

In the outstanding Office Action, Claims 43-45 were objected to because of minor informalities; Claims 1, 2, 4, 6, 8, 9, 12, 13, 19, 21, 32, 33, 35, 36, 38-41, 46, 47, 49 and 50 were rejected under 35 U.S.C. § 102(b) as being anticipated by Nishio et al. (U.S. Patent No. 5,220,129); Claims 1, 2, 4, 5, 8, 9, 12, 13, 18, 21, 32, 33, 35, 36, 38-41, 46, 47, 49 and 50 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mizuno et al. (U.S. Patent No. 4,920,916); Claims 3, 10, 11, 14, 15, 17, 34, 37, 42, 43, 45, 48 and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Kakimoto (U.S. Patent No. 6,377,769); Claims 3, 10, 11, 14, 15, 17, 34, 37, 42, 43, 45, 48 and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Kakimoto; Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Kakimoto and further in view of Yamashita et al. (U.S. Patent No. 6,577,836); Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Kakimoto and further in view of Yamashita et al.; Claim 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Ozawa (JP 2000-330381); Claim 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Ozawa; Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et

al. in view of Duggan et al. (U.S. Patent No. 6,083,652); Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Duggan et al.; Claims 24 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Ayaki (JP 2002-207309); Claims 24 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Ayaki; Claims 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Okado et al. (U.S. Patent No. 6,077,635); Claims 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Okado et al.; Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Yamashita et al. (U.S. Patent No. 6,787,280); Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Yamashita et al.; Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Waki et al. (U.S. Patent No. 5,895,146); Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Waki et al.; Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Duggan et al. and Yamashita et al.; Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Duggan et al. and Yamashita et al.; Claim 44 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio et al. in view of Kakimoto and Yamashita et al.; and Claim 44 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Kakimoto et al. and Yamashita et al.

In view of the allowable subject matter, Claims 1 and 9 have been amended to incorporate the subject matter of Claims 6 and 7 and Claims 19 and 20, respectfully. In addition, Claims 32 and 35 have been amended to recite the features of the claims found to be allowable. Therefore, Claims 1-37 are believed to be in condition for allowance. Withdrawal of the above-summarized rejections of Claims 1-37 is respectfully requested.

As to the objection of Claims 43-45, Applicants note with appreciation the time taken by the Examiner to identify specific areas needing revisions. Applicants have amended the dependency of Claims 43-45, including correction of the cited informalities, and respectfully request reconsideration of the objection thereto. In addition, in view of the present amendment, it is believed that all pending claims are definite and no further rejection on that basis is anticipated. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to derive mutually acceptable language.

As to the rejection of Claims 38, 46, and 49, Applicants respectfully submit that the outstanding Office Action fails to follow the required procedure to reject a claim containing means-plus-function language by disregarding the structure disclosed in Applicants' specification corresponding to the recited language according to the provisions of 35 U.S.C. §112, sixth paragraph.¹ In fact, Applicants respectfully submit that the finding of allowable subject matter in Claims 7 and 20 and the rejection of Claims 38, 46, and 49 are contradictory findings.

Claims 38, 46, and 49 recite, among other features, means for regulating a developer disposed opposite to a surface of a developer carrier or means for carrying and conveying a developer. Applicants respectfully submit that, with respect to the rejection of Claims 36, 46, and 49, a prima facie case of equivalence has not been made in the outstanding Office Action because the outstanding Office Action is devoid of any explanation and/or rationale as to why several elements in the cited references are equivalent to the ones recited.²

¹ "The broadest reasonable interpretation that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination." MPEP § 2181, citing *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994).

² MPEP § 2183 requires that an Examiner "provide an explanation and rationale in the Office Action as to why the prior art element is an equivalent."

In particular, the outstanding Office Action is devoid of an explanation or rationale to explain: (1) how the cited elements in Nishio et al. and Mizuno et al. perform an identical function substantially the same way to produce substantially the same results as the means for regulating a developer of the present invention;³ (2) how one of ordinary skill in the art recognizes the interchangeability of the elements of Nishio et al. and Mizuno et al. to the ones disclosed in Applicants' specification;⁴ (3) how the differences between elements in Nishio et al. and Mizuno et al. and corresponding elements disclosed in Applicants' specification are insubstantial;⁵ or (4) how elements in Nishio et al. and Mizuno et al. are structural equivalents of the corresponding elements disclosed in Applicants' specification.⁶ Given the differences in structures, operations, and purposes of the invention of Nishio et al. and Mizuno et al. and Applicants' invention, Applicants respectfully submit that the Office has not carried its burden as required for the proper rejection of Claims 38, 46, and 49.

³ A showing that "the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000).

⁴ A showing that "a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus. Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, 461 (Ct. Cl. 1977); and *Data Line Corp. v. Micro Technologies, Inc.*, 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987).

⁵ A showing that "there are insubstantial differences between the prior art element and the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138 (Fed. Cir. 2000); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S. Ct. 1040, 41 USPQ2d 1865, 1875 (1997); *Valmont Industries, Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 25 USPQ2d 1451 (Fed. Cir. 1993); and *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

⁶ A showing that "the prior art element is a structural equivalent of the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In addition, Applicants respectfully submit that Claims 42, 48, and 51 patently distinguish over the cited references because none support a prima facie case of equivalence. Claims 42, 48, and 51 recite means for cooling, but the outstanding Office Action fails to justify how the cooling devices of Kakimoto and Yamashita are equivalent to the ones structurally disclosed in Applicants' specification. For example, both Kakimoto and Yamashita teach and disclose cooling devices that use heat pipes. As a non-limiting example, the present invention discloses cooling means that use the forced circulation of a coolant (see as a non-limiting example, the structure disclosed in FIG. 25 of Applicants' disclosure). Those of ordinary skill in the art will understand that in heat pipes there is no forced circulation of a coolant, but a fixed amount of fluid changes phase from liquid to vapor, thus providing the heat transfer medium in terms of an amount equal to the latent heat of vaporization of the fluid in the heat pipe. As such, the cooling means disclosed in this application cannot be equivalent to the heat pipes disclosed by Kakimoto and Yamashita and these references are not proper to support a rejection of Claims 42, 48, and 51. Therefore, Applicants respectfully submit that the above-summarized rejections of Claims 38-51 are improper and must be withdrawn.

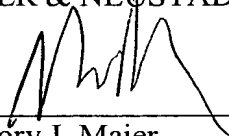
Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-5, 8-18, and 21-51 is earnestly solicited.

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Reply to Office Action of March 17, 2005

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representatives at the below listed telephone number.

Respectfully submitted,

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